

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A piston ring for use with a piston in a reciprocable compressor, the piston ring comprised of a self-lubricating plastics material composed of a wear-resistant polymer matrix in which are dispersed microcapsules containing a lubricating agent, wherein the polymer matrix is selected from one or more of a group consisting of polyketones, polybutadiene-styrene and polytetrafluoroethylene and wherein said microcapsules comprise a shell of polyoxymethylene urea (PMU).

2. (Canceled)

3. (Previously Presented) The piston ring according to claim 1, wherein said polyketone is an aromatic polyketone.

4. (Previously Presented) The piston ring according to claim 3, wherein said aromatic polyketone is polyetherether ketone (PEEK).

5-6. (Canceled)

7. (Previously Presented) The piston ring according to claim 1, wherein said microcapsules have an average diameter of between 5 and 500 μ .

8. (Previously Presented) The piston ring according to claim 1, wherein said microcapsules are dispersed in said polymer matrix in a ratio by weight of between 2 and 30 wt. %.

9. (Previously Presented) The piston ring according to claim 1, wherein said lubricant incorporated in the microcapsules is an oil which is low in acidity.

10. (Previously Presented) The piston ring according to claim 1, wherein said lubricant is a fluid lubricant which has a viscosity within the range between 20 and 250 cSt at 40°C.

11. (Previously Presented) The piston ring according to claim 1, wherein said lubricant further comprises an additive or filler to increase mechanical strength or thermal conductivity.

12. (Previously Presented) The piston ring according to claim 11, wherein said additive is a microelement selected from the group consisting of zinc, boron and mixtures thereof.

13-17. (Canceled)

18. (Currently Amended) A method for reducing the friction or wear of adjacent sliding elements in motion, in which one of the sliding elements comprises a piston ring formed with self-lubricating material, the method comprising forming the piston ring from a wear-resistant polymer matrix in which are dispersed microcapsules containing a lubricating agent, wherein the polymer matrix is selected from a group consisting of one or more of polyketones, polybutadiene-styrene and polytetrafluoroethylene, and wherein said microcapsules comprise a shell of polyoxymethylene urea (PMU).

19. (Canceled)